Food and Agriculture Organization of the United Nations

The role of forest producer organizations in social protection

FORESTRY WORKING PAPER 7

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The role of forest producer organizations in social protection

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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Acronyms

FAO	Food and Agriculture Organization of the United Nations
FFF	Forest and Farm Facility
FPO	forest producer organization
IIED	International Institute for Environment and Development
ITTO	International Tropical Timber Organization
NGO	non-governmental organization
NWFP	non-wood forest product
PFP	Private Forestry Programme (United Republic of Tanzania)
REDD+	reducing emissions from deforestation and forest degradation, including the role of conservation, sustainable management of forests and enhancement of forest carbon stocks
ROSCA	rotating savings and credit association
RRI	Rights and Resources Initiative
SDG	Sustainable Development Goal
TASAF	Tanzania Social Action Fund (United Republic of Tanzania)
WFP	World Food Programme

1. Introduction

Forest and farm producers are the primary producers and suppliers of food, forest products and other resources for domestic consumption and trade in international markets (FAO and AgriCord, 2016). However, small-scale producers face a myriad of challenges such as insecure land rights, poor access to finance, poor infrastructure, remoteness and isolation from markets and decision-making powers, poor access to information and exploitation by intermediaries (deMarsh *et al.*, 2014; Pasiecznik and Savenije, 2015). Producer organizations help small-scale forest producers address these challenges through increased economies of scale; efficient use of resources; greater bargaining power and competitiveness; improved access to formal capital, input and product markets; and enhanced political power (Pasiecznik and Savenije, 2015; deMarsh *et al.*, 2014; FAO and AgriCord, 2016).

Forest producer organizations are significant actors in the forest private sector and have an important role in reducing the vulnerabilities of forest-dependent people (Tirivayi, 2015). Since more than 30 percent of the world's forests are owned or managed by small (family) farmers, communities and indigenous peoples (deMarsh *et al.*, 2014), these organizations manage a significant proportion of the world's forest resources and thus contribute to poverty reduction and food security (Pasiecznik and Savenije, 2015; FAO and AgriCord, 2016). Although forest-based groups are less advanced and established than farmer and agriculture-based organizations, they have recently become significant stakeholders in natural resource management and climate change adaptation and mitigation efforts (Pasiecznik and Savenije, 2015; Stevens *et al.*, 2014; Bowler *et al.*, 2010). As forest producers depend on forest resources for their livelihoods, they are inclined to conserve forests and prevent the unsustainable extraction of forest resources (Pasiecznik and Savenije, 2015). Forest producer organizations cater to the needs of the most marginalized and isolated communities. By strengthening livelihoods and human development, fostering sustainable forest management, and enhancing social cohesion and inclusion, they offer potential for fulfilling many of the Sustainable Development Goals (SDGs). Yet despite their potential in advancing the global development agenda, forest producer organizations are not high-priority recipients of support from governments and donors (Pasiecznik and Savenije, 2015).

Most forest producer organizations promote the economic interests of their members and do not explicitly focus on protecting members against risks or shocks (Bose *et al.*, 2006). However, they indirectly help their members manage risks by protecting forest assets from fire, theft, pests and diseases, by reducing the costs of managing and protecting trees and by allowing members to engage in non-forest work (Wang, 2012). This study is premised on the notion that collective action principles of forest producer

organizations potentially allow them to provide formal and informal social protection benefits to their members (Bose *et al.*, 2006; Molnar *et al.*, 2008). These include formal social protection benefits such as social insurance and informal insurance from pooled contributions, which can insure members in times of risk (Kazoora *et al.*, 2006; Chen, 2015). Consequently, forest producer organizations have the potential to contribute to increased social protection coverage among poor and vulnerable forest-dependent people in line with the commitment under SDG 1 to expand the provision of social protection and particularly to increase coverage for the poor and vulnerable by 2030 (FAO and AgriCord, 2016).

However, the evidence base on the role of forest producer organizations in providing social protection coverage is thin or scattered. Therefore, this study reviews the literature on the provision of social protection by forest producer organizations, with a specific focus on their role and practices in this regard, the types of benefits they provide, the factors that may enhance or hinder the provision of benefits and the opportunities for taking advantage of these organizations to expand social protection coverage in marginalized communities. Chapter 2 presents evidence of social protection practices. Chapter 3 discusses the enabling factors and constraints to the provision of social protection by forest producer organizations. Chapter 4 discusses the opportunities for expanding social protection coverage via forest producer organizations, while Chapter 5 presents the conclusions of the study.

DEFINITION OF SOCIAL PROTECTION

The review followed the conventional definition of social protection, which emphasizes the transfer of income or consumption to the poor, protecting the vulnerable against economic and social livelihood shocks and risks, and enhancing the social status and rights of marginalized groups (Devereux and Sabates-Wheeler, 2004; Harvey *et al.*, 2007).

Both formal and informal types of social protection were considered (Devereux and Getu, 2013). Formal social protection instruments were grouped into four broad categories: social insurance, social assistance, labour market policies and subsidies (Table 1).

In the absence of formal social protection, households rely on informal social protection to manage risks. Informal social protection refers to informal insurance obtained from social networks or groups that are "traditional" or "indigenous" (Devereux and Sabates-Wheeler, 2004). These networks may comprise extended family, kinship and communities. In some contexts, informal social protection can be a more important source of security than formal social protection for most people (Heltberg *et al.*, 2013). A fundamental concept of informal insurance is mutual exchange or mutual aid and self-help. Rural organizations play a vital role in developing collective practices of risk management and mutual assistance for their members (Vinci, Djeddah and Hani, 2014). For instance, households or individuals form social groups or organizations that pool financial resources in a common fund, to assist each other in times of emergencies or to cover costs for special occasions. Examples of such groups include various forms of cooperatives, market associations, savings and credit clubs and burial societies (Barrientos, 2011; Devereux and Sabates-Wheeler, 2004).

Table 1 Categories of formal social protection

Category	Definition	Notes	Examples
Social Insurance	Contributory transfers that rely on the formal pooling of contributions by individuals in public or private forest and non-forest employment	Provide protection against life-cycle contingencies such as maternity and old age, or work-related contingencies such as unemployment and sickness	Health insurance, health funds, maternity benefits, unemployment benefits, retirement pensions
Social Assistance	Non-contributory transfers targeting vulnerable and deprived populations such as people with disabilities, the elderly, households with few or no working members, women and children, and poor adults of working age	Usually tax-financed or donor financed	Unconditional cash or in-kind transfers such as social pensions, cash benefits, food aid vouchers Conditional transfers such as cash or food for work and fee waivers
Labour market policies	Legislation to protect forest and non-forest workers and policies aimed at increasing the demand for labour and actively encourage job search		Minimum wage guarantees, occupational safety standards, wage subsidies, job matching
Subsidies	Aimed at controlling prices in order to maintain affordability of goods	Usually used by policy-makers to encourage the consumption purchase of certain goods in order to fulfil social objectives	Agricultural subsidies (fertilizer, seed), food subsidies, energy subsidies

Sources: Barrientos, 2011; Devereux and Sabates-Wheeler, 2004; Tirivayi, 2015

A TYPOLOGY OF FOREST PRODUCER ORGANIZATIONS

Forest producers "are forest industries managed by indigenous and other local communities for livelihoods and profits and are engaged in the production, processing and trade of timber and wood products and commercial non-wood forest products (NWFPs), and may participate in markets for environmental services" (Molnar *et al.*, 2008). Forest producer organizations (FPOs) are a form of collective action and are defined as formal or informal associations of forest producers (Pasiecznik and Savenije, 2015; FAO and AgriCord, 2016). Examples of FPOs include tree-grower and agroforestry associations, associations of small and medium-sized forest enterprises, associations of indigenous people, local community-based organizations, associations of community forest enterprises, informal village-level forest management groups, forest owner associations, producer cooperatives and federations of producer organizations (FAO and AgriCord, 2016; Pasiecznik and Savenije, 2015).

FPOs vary in their geographic scope, institutional and legal form, composition and scale, activities and sources of finance (deMarsh *et al.*, 2014). In terms of geographic scope, they can be organized at the village, town, provincial or national level. A larger

geographic scope allows FPOs to exploit economies of scale in the provision of services to their members. Formal FPOs are registered as legal institutions such as cooperatives, unions, non-profit associations and federations of local FPOs. Examples of informal FPOs are village-level forest management labour-sharing groups. Members of FPOs include individual forest producers, smallholder families, indigenous people and local communities, and federations of local FPOs or cooperatives (deMarsh *et al.*, 2014; FAO and AgriCord, 2016).

FPOs have multiple roles and activities across the forest and non-forest sectors. Their forest-based activities can be classified into four main categories (FAO and Agricord, 2016; deMarsh *et al.*, 2014):

- representing smallholder producers and their interests and influencing policy through activities such as the strengthening of tenure security and advocacy for an enabling environment;
- providing marketing, production and economic services such as credit and financial services, collective production and value addition to realize economies of scale, collective management of the value chain and increased market access via collective bargaining and negotiating with buyers;
- providing capacity building, networking and extension services such as education and training, advice on production and opportunities for members to share knowledge and experience;
- providing public goods such as the management of natural resources.

Sources of revenue for FPOs include membership dues and fees, payments from services provided and profits from economic enterprises (deMarsh *et al.*, 2014). FPOs sometimes receive financial support from governments and other actors in the sector. Within FPOs, the spending of profits is guided by benefit-sharing rules and mechanisms (FAO and AgriCord, 2016).

RESEARCH STRATEGY

The literature reviewed included peer-reviewed articles published or disseminated from the following databases and publishers: Cambridge Journals, Google Scholar, JSTOR, Oxford Journals, SAGE, Science Direct, Springer, Taylor and Francis, and Wiley. Evidence was also retrieved from reports and policy papers by academics, FAO, Forest Trends, the International Institute for Environment and Development (IIED), the International Tropical Timber Organization (ITTO) and the Rights and Resources Initiative (RRI).

The search strategy involved using a combination of keywords related to forest producers and producer organizations (e.g. forest-based producer organization, forest cooperative, community forest enterprise, forestry timber concession, community participatory forest management, indigenous community) in tandem with keywords related to social protection (e.g. social protection, informal insurance, social insurance, social assistance, savings and credit, rotating savings and credit association [ROSCA]).

2. Role of forest producer organizations in social protection

EVIDENCE OF SOCIAL PROTECTION PRACTICES BY FOREST PRODUCER ORGANIZATIONS

While the review was not intended to be exhaustive, it highlights key evidence of the role of the forest producer organizations in providing social protection to their members. A careful analysis of the reviewed evidence shows that FPOs provide formal social protection, facilitate access to informal social protection and social services, and can support the implementation of national social protection programmes.

Provision of formal social protection

One of the peculiar features of rural areas of developing countries is the preponderance of informal employment which absorbs the majority of the rural poor. Operating in informal or invisible economies increases the cost of establishing national social security systems such as job insurance, pensions and health care. Consequently, formal institutions cannot fully address the social protection needs of the rural poor. FPOs develop important social protection schemes in these informal economies and societies (Vinci, Djeddah and Hani, 2014, 2016). Although FPOs focus on economic matters, they can also provide social insurance benefits such as pensions and life, accident and health insurance (Bose *et al.*, 2006; Larson *et al.*, 2008; DRT, 2015; Molnar *et al.*, 2008). While scant evidence is found regarding the role of FPOs in the provision of social assistance, the literature shows that social insurance is the most common type of formal social protection provided by FPOs.

Examples of FPOs providing social insurance are found around the world (Table 2). In Uganda, FPOs generally promote and provide health and education services for their members and the communities (Kazoora *et al.*, 2006). For instance, the United Organisation for Batwa Development's community-based health insurance scheme aims to improve access to health care for the Batwa, a forest-dependent community facing challenges due to lack of infrastructure. In the Plurinational State of Bolivia, the Coinacapa forest producer cooperative, with members from Amazon communities, not only provides health insurance but also gives education grants to the children of members (Larson *et al.*, 2008; Oxfam, 2010). The Mamirauá Community Timber Enterprise in Brazil and Fedecovera in Guatemala subsidize the costs of health care through health care funds. Fedecovera also provides free medical services for its members, who are largely from the Maya indigenous population, are exposed to extreme weather and lack

access to health services (FAO and AgriCord, 2016; Molnar *et al.*, 2008). In Guyana, the Surama Eco-tourism Enterprise of the Makushi indigenous people uses membership fees and profits from sales to finance health-related transportation costs and medical costs (Ousman, Roberts and Macqueen, 2006). In Mexico, the indigenous FPOs Santa Catarina Ixtepejii and Sociedad Sur and the non-indigenous FPO El Balcon provide retirement pensions (Molnar *et al.,* 2008). In India, members of the Madhya Pradesh Minor Forest Produce cooperative receive life and accident insurance (Bose *et al.*, 2006).

Table 2. Provision of social insurance by forest producer organizations around the world

Organization	Country	Products	Social insurance benefits
Coinacapa forest cooperative	Bolivia (Plurinational State of)	Brazil nuts (NWFPs)	Health insurance
Mamirauá Community Timber Enterprise	Brazil	Timber	Health fund
Fedecovera federation of cooperatives	Guatemala	Timber, cocoa and NWFPs (coffee, tea, cardamom)	Health fund Free medical services for members
Surama Eco-tourism Enterprise	Guyana	Eco-tourism	Health fund
Madhya Pradesh Minor Forest Produce cooperative	India	NWFPs	Life insurance Accident insurance
Santa Catarina Ixtepejii organization	Mexico	Timber, NWFPs, agriculture, ecotourism	Pensions
Sociedad Sur union of regional communal lands (*ejidos*)	Mexico	Timber, handicrafts, ecotourism	Pensions
El Balcon community enterprise	Mexico	Timber (sawmill)	pensions
United Organisation for Batwa Development	Uganda	NWFPs	Community-based health insurance

Sources: Bose *et al.*, 2006; Larson *et al.*, 2008; Molnar *et al.*, 2008; Oxfam, 2010; FAO and AgriCord, 2016

Provision of informal social protection

A common form of informal social protection among FPOs is informal insurance provided from funds created from pooling monetary contributions from members. Access to these mutual funds may rotate among members and is allowed in times of emergencies and hardship (Zeller and Sharma, 1998). This concept is similar to that of rotating savings and credit associations (ROSCAs), which constitute one of the most prevalent informal financial institutions in developing countries (Anderson, Baland and Moene, 2003).

The following are examples of FPOs around the world that are using this collective informal insurance approach.

- In Burkina Faso, groups of women working in the shea butter sector have created mutual funds from setting aside profits, savings or contributions, to which members can have access during financial shocks (e.g. funerals, illnesses, weddings) and for making purchases and investments. These groups also serve as a platform for social interaction, advice, knowledge exchange and provision of emotional support to women (Chen, 2015).
- In Uganda, community-based associations have historically aimed to stimulate self-help for mutual benefits. Consequently, some FPOs have established saving and credit funds which can be accessed during emergencies such as illness or death. These organizations also facilitate access to external sources of credit and financing for their members (Kazoora *et al.*, 2006).
- In the Plurinational State of Bolivia, the organization Rural Art supports a women's palm weavers association and has a rotating fund that is used to provide gifts to members and that members can use to finance access to health services (Marshall, Schreckenberg and Newton, 2006).
- In Guyana, several forest-based associations provide stipends and donations to their members (Ousman, Roberts and Macqueen, 2006).
- In Honduras, the oldest forest cooperatives have pooled savings funds which can be used by members at times of illness or death or for purchasing holiday gifts (Jones, 2003).
- In South Asia, women's self-help groups collectively save money in funds that lend money to members and can be used during emergencies (Sornam and Balaji, 2007). One example is the Madhya Pradesh Silk Federation for female producers in India, which relies on pooled savings to manage risks and shocks (Bose *et al.*, 2006). Another example is the Harda District Timber Merchant Association, whose collective fund lends money to members when their businesses fail (Bose *et al.*, 2006).

Social services

Forest producer organizations also provide other services to their members that can have social protection functions or fulfil social protection objectives. These include building of community assets (schools and clinics), provision of education and training and improving employment opportunities. FPOs can make services available to forest producers at a lower cost and more effectively than governments (deMarsh *et al.*, 2014). Examples include the following:

- In Nepal, a community forest enterprise in bel fruit (*Aegle marmelos*) juice production established a community fund that supports poor families in income-generating activities and entrepreneurship and finances the construction of school buildings and community centres, hiring of teachers and supply of clean water (Paudel, 2006).

- In China, villages hosting the Xiaozhuang Bamboo Shoot Cooperative have received preferential treatment from the local government in relation to infrastructure improvements such as better roads (FAO and AgriCord, 2012; FAO, 2011).
- In Honduras, some cooperatives have invested in roads, community centres, discount stores, water systems and schools (Jones, 2003).
- In Guatemala, Fedecovera, a federation of forest cooperatives, provides scholarships for children and vocational training for members and has set up an agroforestry school (FAO and AgriCord, 2016).
- Santa Catarina Ixtepejii and the El Balcon community timber enterprise in Mexico construct schools and rural clinics, maintain churches and roads, supply water and finance scholarships and community emergency funds (Fonseca, 2007; Molnar *et al.*, 2008; Orozco, 2007).
- In Uganda, FPOs facilitate access to training and external financial grants. Provision of social services is pursued as a strategy for eradicating poverty and also for attracting funds from external actors (Kazoora *et al.*, 2006).
- In China, the Xiaozhuang Bamboo Shoot Cooperative facilitates better access to loans by its members (FAO and AgriCord, 2012; FAO, 2011).

Support for the implementation of national social protection programmes

In contexts where governments lack comprehensive information on the socio-economic status of potential beneficiaries, it may be difficult for them to provide and target social protection coverage. In such cases, FPOs could contribute to the design and implementation of social protection policies and programmes. They can supply information and feedback to government to ensure provision of social protection services to the people who are in greatest need (Asen *et al.*, 2012; FAO and AgriCord, 2012; Vinci, Djeddah and Hani, 2014, 2016).

Recently, forest initiatives and FPOs have supported the implementation of some large-scale social protection programmes in developing countries. In the United Republic of Tanzania, the leading social protection programme, Tanzania Social Action Fund (TASAF), partnered with the Private Forestry Programme (PFP) in 2015 to reduce poverty and vulnerability through tree planting. PFP supports forest producers in commercial tree planting and forest conservation through tree grower associations that improve access to timber markets and increase financial benefits for forest producers (Bamwenda *et al.*, 2015). Both TASAF and PFP aim to improve incomes and livelihoods of vulnerable and poor communities. TASAF collaborates with PFP in the identification and targeting of vulnerable and poor households to take part in tree planting. TASAF also implements public works and conditional cash transfer schemes in PFP-supported communities (Solution Blocks, 2015).

In the State of Uttarakhand in India, village forest councils (*Van Panchayats*) have been identified as key implementing organizations for India's flagship social protection scheme, the National Rural Employment Guarantee Scheme. The scheme implements

public works schemes targeted at the rural poor, including forest-dependent people. Village forest councils support the implementation of afforestation and tree planting activities as public works under the scheme, thereby facilitating access to employment for community members (Forest Research Institute, 2006).

In some countries, international organizations such as the World Food Programme (WFP) work together with FPOs in implementing cash or food-for-work programmes, in which vulnerable households are temporarily employed and paid for activities such as reforestation and tree planting. In Kyrgyzstan, WFP implements a cash-for-work programme that promotes reforestation activities in collaboration with the Kyrgyz Association of Forests and Land (WFP, 2014).

KNOWLEDGE GAPS

The current literature shows that FPOs can provide formal or informal social protection benefits to their members. The most common formal social protection benefits appear to be social insurance such as health insurance, life and accident insurance or financial support during old age. With respect to informal social protection, organizations establish common funds that rely on member contributions, and these funds provide financial support during medical or financial emergencies and provide loans to members. FPOs also provide an array of social services to their members.

However, there is limited evidence of the effectiveness or socio-economic impact of formal or informal social protection benefits provided by forest producer organizations. Studies do not provide comprehensive information on elements such as rules of compliance, pay-out levels, contribution levels and whether pooled funds are banked in the formal financial system. The scope and duration of the social protection mechanisms employed by FPOs are also unclear.

3. Increasing social protection coverage through forest producer organizations

ENABLING FACTORS

FPOs often differ in the products they sell and the scale and structure of the operation. Furthermore, market and policy conditions vary considerably from one country to another. However, the following conditions and factors are often present in successful FPOs: secure land tenure, robust management, high commercial value of forest products and ease of product extraction, market accessibility, enabling regulatory frameworks, and a favourable political and social context in the communities (Molnar *et al.*, 2008; Richards, 1991; Pasiecznik and Savenije, 2015). This set of characteristics constitutes an effective enabling environment that will promote both the development and sustainability of the organizations and their capability to provide social protection benefits (Molnar *et al.*, 2008; Richards, 1991).

Secure land tenure

Securing landownership for forest producers is vital for the creation and sustainability of forest producer organizations (Macqueen, 2010). Insecure forest land tenure inhibits the emergence of forest producers (Molnar *et al.*, 2008). Land tenure security enables forest producer organizations to enter into long-term business contracts and incentivizes the conservation and efficient use of forest resources; it also enables FPOs to promote further social interests such as social protection (Scherr, White and Kaimowitz, 2004). FPOs generally require secure land tenure but also an array of complementary rights, which include rights for access, management, use of forest products and use of forest land as collateral (Almeida and Hatcher, 2011; Macqueen, 2013). Macqueen (2013) found that a longer duration of secure tenure was an enabling condition for successful FPOs in western countries such as Norway and Sweden and in developing countries such as Guatemala and Nepal; however, when commercial rights were not granted to FPOs, they remained engaged in subsistence activities and did not transition to commercialization and income-earning livelihoods. Furthermore, land tenure security defines the rules by which FPOs interact with outsiders, defines the limits of state power and protects individuals from possible abuse of power by local leaders.

Land tenure security has been promoted and granted to FPOs in various parts of the world. For example, the Mexican agrarian reform in 1917 led to the creation of

landholdings called "*ejidos*" and "*comunidades agrarias*" where members received rights to individual land and communal holdings (Charnley and Poe, 2007). In the Philippines, the emergence of community-based timber enterprises was driven by land tenure and resources security (Pulhin and Ramirez, 2006). In other countries, land tenure has not always been secure and clearly defined. In China, FPOs have been promoted and have increased since the forest land tenure reform granted use rights of forest land and ownership of forests to individual households in collective forest areas. By 2012, more than 90 million forestry farms had received forest management certificates, and consequently about 115 000 forest and farm producer organizations were formed (FFF, 2014; FAO and AgriCord, 2012). In the Gambia, the national Forestry Department empowered local communities by granting them tenure rights (Tomaselli, Timko and Kozak, 2012). The forest tenure reform incentivized communities to commercialize forest production in an environmentally sustainable manner.

Robust leadership and management

Another important characteristic that promotes an organization's sustainability and the provision of social protection benefits is strong leadership and management (Herbel *et al.*, 2012). The functionality of an FPO depends on effective leadership, well-defined objectives, mutual aspirations, social unity and partnership; in addition, well-managed organizations avoid overdiversification and overexpansion without adapting the corporate structures and financial management procedures (Kazoora *et al.*, 2006). A well-functioning organization or cooperative is also characterized by good communication and participation (Jones, 2003).

Revenue generation and market access

The sustainability of forest producer organizations and the provision of social protection benefits will also depend on the revenues and profits from product sales, especially when part of the earnings is allocated to community funds. For this reason, the commercial value of forest products and access to markets are vital. The choice for harvesting a particular product often relies on market demand and market competition. Studies have shown that the provision of social services by FPOs is feasible when their activities and returns expand or diversify (West and Aldridge, 2006; Stoian and Rodas, 2006a, 2006b; Scurrah-Ehrhart and Blomley, 2006).

In order to sustain income and the provision of social protection, FPOs could sell forest commodities that have a large or growing national and international market (Scherr, White and Kaimowitz, 2004). For example, FPOs in Nepal sell bel fruit, which has high market demand in the community and neighbouring villages (Paudel, 2006), and in Burkina Faso women's cooperatives produce shea butter, a highly commercialized forest product (Chen, 2015). FPOs are more successful in markets with low capital, entry and management costs, few subsidies for large-scale producers and no economies of scale that large producers can exploit (Scherr, White and Kaimowitz, 2004). Carias Vega and Keenan (2016) recommend an environment with low transaction costs and

information asymmetries as essential for positive market participation and commercial relations by FPOs. FPOs also benefit from markets with socially conscious buyers, as they enable them to produce a high-value "brand" (Scherr, White and Kaimowitz, 2004). The establishment of alliances or joint ventures among FPOs enhances market access, bargaining power and the transfer of information (Chen, 2015). However, while efforts to scale production and increase market access strengthen FPOs, this may happen at the expense of maintaining a robust connection with members and maintaining the coherence of social objectives.

Supportive institutional framework

A supportive institutional framework can create incentives for long-term market viability of FPOs (Molnar *et al.*, 2008). Economic viability and sustainability help FPOs create fiscal space for social protection benefits. Institutional processes such as certification and tax exemption of FPO products can improve their competitive advantage and enhance their viability (Chen, 2015; Stoian and Rodas, 2006a, 2006b; Paudel, 2006). For instance, in Nepal, tax exemptions incentivized and facilitated the establishment of FPOs (Paudel, 2006). Tax reforms can also influence the entry of organizations into high-value forest product markets. In China, a tax advantage encouraged forest producers to shift from traditional forestry activities to commercial orchard and bamboo forestry production (West and Aldridge, 2006). Institutional innovations that enhance access to inputs and output markets, information and knowledge also strengthen the fiscal position of FPOs (Herbel *et al.*, 2012).

Social and political context

Contexts with social norms pertaining to community rights and egalitarianism can be favourable for the provision of social protection by FPOs. In Mexico's *ejido*s, for example, groups of individuals received legal rights to a piece of land, and strong egalitarianism is accompanied by social spending (Orozco, 2007; Charnley and Poe, 2007). Besides social context, the involvement of FPOs in policy negotiations and governance can shape the development of forest markets, lead to better regulation and supportive laws and raise the profitability of forest producers, thereby creating fiscal space for the provision of social protection. Furthermore, increased participation by the local government in forest management can create an enabling environment for FPOs (Scherr, White and Kaimowitz, 2004). The Forest and Farm Facility (FFF) is an example of a participatory platform for discussing policies and programmes which has provided support and strengthened FPOs. FFF has increased FPOs' capacity to organize themselves and to contribute to policy-making, and it facilitates better access to markets, knowledge and finance (FFF, 2014). FFF's multistakeholder platforms thereby help improve policies, incentives, governance and legal and regulatory frameworks. FFF also facilitates legislation that prevents elite capture of forest incentive payments (FAO and AgriCord, 2016).

CONSTRAINTS

Constraints hindering FPOs from providing social protection benefits include geographical remoteness and bad weather conditions, the lack of forest ownership and use rights, poor access to credit and finance, internal conflicts, deforestation, social and political exclusion and a predominant informal sector.

Geographical remoteness and climate

Forest-dependent communities live in remote areas where poor or underdeveloped markets and transport and communication infrastructure not only inhibit their economic viability but also isolate them from public social protection programmes. The same constraints also hinder FPOs' ability to provide social protection benefits. Distance from markets forces forest producers to incur transportation costs (Marshall, Schreckenberg and Newton, 2006), and the lack of transport infrastructure also hinders the expansion of trade and leads to high product losses. In Papua New Guinea, limited road access, especially during the rainy season, has negative impact for small-scale sawmillers; only large logging companies have sufficient capital to invest in building roads that reach remote areas (Bun and Baput, 2006). The lack of communication infrastructure such as telephone lines and mobile networks decreases access to and sharing of price, input and product information among FPOs.

Weather conditions also influence the success of FPOs' production and operations. In tropical areas, forest communities are subject to climate variability. Variability in temperature and humidity can have substantial impact on butterfly production in the United Republic of Tanzania, for example (Scurrah-Ehrhart and Blomley, 2006). In Guatemala, the seasonality of the demand for timber extraction and sawmilling leads to periods with high labour demand compared to supply (Stoian and Rodas, 2006a, 2006b).

Insecure tenure and cumbersome regulations

The development and capabilities of forest producer enterprises are substantially hampered by restricted forest access, tenure insecurity and lack of control over resources (Scherr, White and Kaimowitz, 2004). At the global level, most forests are publicly owned and managed (FAO, 2016). In 2013, about 72.6 percent of the global forest land was owned by governments, 12 percent was owned by private firms and individuals, and 15.5 percent was designated for or owned by indigenous peoples and communities (RRI, 2017). FPOs depend not only on tenure, but on commercial rights for utilizing the forest products (Macqueen, 2013). In some countries, indigenous people's rights have been recognized, but they are not allowed to use land resources for commercial purposes. In Brazil, for example, this restriction has resulted in increased illegal timber harvests, with forest producers selling their products at low commercial prices, and FPOs have been unable to raise funds and obtain technical assistance to sustain management systems (Scherr, White and Kaimowitz, 2004). In the western Amazon, FPOs that obtained formal access to land faced administrative and political barriers which hindered their access to timber and prevented them from obtaining full benefits from it (Pacheco *et al.*, 2016). In

Pingshang village in China, the lack of tenure and resource rights impeded the success of the community forest producers' group (West and Aldridge, 2006).

The legal and regulatory framework for forest production is usually characterized by a burdensome bureaucratic process which prevents people from requesting permission to harvest land and generate revenues that can support the provision of social protection benefits (West and Aldridge, 2006). In Amazon countries, the regulations and policies governing community forestry and access to forest product markets are usually complex, and their design is more suited for large-scale actors. Attempts to simplify these regulations have benefitted non-local producers and other actors in the value chain rather than local communities. The regulations also impose barriers and transactions costs for FPOs (De Jong *et al.*, 2010). In the Philippines, FPOs are constrained by overregulation and corruption, which diminish revenues (Pulhin and Ramirez, 2016). Gritten *et al.* (2015) found that in Cambodia, Nepal and Viet Nam, regulations for timber production were complex, requiring compliance at various steps, and FPOs lacked the capacity and skills to comply with them.

Conflict and deforestation

Conflict can deter the operations of FPOs. Conflicts in communities can result from disagreements about land boundaries, such as overlapping claims to land by different groups, or when traditional rights over resources change through the adoption of certain policies (Scherr, White and Kaimowitz, 2004). In Columbia, armed conflicts have lowered the potential of FPOs as well as their potential impact on community welfare (Robledo and Tobón, 2006). In eastern Cameroon, internal conflicts caused by corruption and the struggle for political recognition among villages hampered the operations of FPOs in the Ngola-Achip community forest, leading to the suspension of activities for six months (Kenneth, 2006). Deforestation remains a threat to the success of FPOs. Where state forest ownership has promoted large-scale industrial concessions which eliminated the pre-existing forest and land rights claims of indigenous people, the awarding of concessions has resulted in forest degradation, illegality and community marginalization, with a subsequent increase in poverty rates and social pressure and further forest degradation (Macqueen, 2008).

Social exclusion and elite capture

The lack of representation in policy- and decision-making can limit the sustainability of FPOs and prevent them from maximizing their economic benefits (Macqueen, 2008). In some countries, the decentralization of forest management has decreased local control over communal forests. In Guatemala, forest governance institutions have supplanted traditional management and ignored the historic rights of forest-dependent people, disempowered indigenous people and decreased their political inclusion (Charnley and Poe, 2007).

FPOs are also vulnerable to elite capture which could lead to the inequitable allocation of financial benefits and external financial support. Case studies in Asia, Latin America

and sub-Saharan Africa have found that power and benefits in community-based forest management initiatives were controlled by the wealthy and highly educated members (Dahal, Larson and Pacheco, 2010). FPOs can also preserve and maintain the position and power of local political elites and village leaders and allow discrimination against the most vulnerable groups. Since most FPOs require monetary contributions for formal or informal social protection benefits, they may exclude the poorest members in the community who could not afford to make such payments (Vinci, Djeddah and Hani, 2016). In addition, FPOs may not be inclusive; their members are generally economically active and are not likely to be the poorest in the community (deMarsh *et al.*, 2014).

Predominant informal sector and poor access to finance

As mentioned above, FPOs provide informal social protection benefits through funds created from pooling member contributions, much as in rural savings and credit clubs, and this fills the gap from inadequate coverage of formal social protection programmes. However, this informal solution faces several constraints. External shocks such as drought or floods, which affect all members of the community and thus all contributors to the funds, diminish financial contributions to the funds when demand is high (Zeller and Sharma, 1998; Vinci, Djeddah and Hani, 2016). Unlike formal institutions, informal savings and credit funds are unable to mitigate external risks. Furthermore, informal savings and credit funds lack sufficient capital to finance larger capital projects such as new enterprises, inputs or the purchase of forest land. Most of the loans provided by informal FPOs are usually small and usable for short-term periods to cover emergency needs (Zeller and Sharma, 1998). The sustainability of informal savings and credit is threatened by the dependence on member contributions even when they default, as groups cannot rely on external contributions (Anderson, Baland and Moene, 2003).

In the formation of FPOs, substantial capital infusion is often required for investments in productive and marketing activities. However, FPOs have limited access to formal credit, and interest rates proposed by informal lenders are high (Marshall, Schreckenberg and Newton, 2006). Access to formal financial services is also hampered by the geographic remoteness of FPOs. In Papua New Guinea, small sawmillers are subject to high collateral demands by formal lenders. Since they lack information on the prices of timber, they are unable to estimate the costs of credit terms and therefore cede this role to formal lenders (Bun and Baput, 2006).

4. Opportunities for expanding social protection coverage through FPOs

FINANCIAL ASSISTANCE

Financial assistance has the potential to boost the development of FPOs and may also enhance the ability of FPOs to provide social protection benefits. FPOs have four potential sources of financing.

- ***Self-financing:*** FPOs can rely on self-financing to launch their operations (Scherr, White and Kaimowitz, 2004). For example, in Burkina Faso, since the end of donor assistance in 1993, the Chantier d'Aménagement Forestier (Forest Management Project Site, CAF) community forestry initiative has relied on self-financing. The initiative allocates 30 percent of the revenues from fuelwood sales to a fund used to pay staff salaries, local labour and other management costs (Hagen, 2014). However, self-financing has also discouraged communities from starting FPOs (Scherr, White and Kaimowitz, 2004).
- ***Public assistance:*** Public assistance in the form of grants or public subsidies could help FPOs in their productive activities. Grants are advantageous, as they have lower transaction costs than loans (Scherr, White and Kaimowitz, 2004). Tax levies are another form of public assistance that has been used to finance FPOs. In the Niger, since 1993 the government has allowed FPOs to keep half of the taxes levied on the transportation of fuelwood to urban areas (Hagen, 2014; Noppen, Kerkhof and Hesse, 2004). In the Gambia, a 15 percent State tax on revenues from community forests is allocated to the National Forestry Fund, which is then used to support FPOs and other community forestry initiatives (Jammeh, 2008; Hagen, 2014). The Government of Guatemala has made steps towards providing forest incentive payments to support small producers and to prevent elite capture.
- ***Private financing:*** Private entrepreneurs are increasing investments in the forest sector as part of corporate social responsibility and for environmental purposes. Several venture capital funds have been formed in collaboration with non-profit organizations, such as the Small Enterprise Assistance Fund in Latin America (De Jong *et al.*, 2010). FPOs can also be financed by commercial loans from the private financial sector. In China, FPOs are able to use forest land certificates as collateral in accessing formal credit and insurance products (Tint *et al.*, 2014).

- ***External donors:*** External donors remain a vital source of financing for many FPOs around the world, especially those created or sustained under projects for reducing emissions from deforestation and forest degradation (REDD+) being implemented in developing countries. Some countries, such as India, Indonesia, Nepal, the Philippines and Thailand, have received long-term donor support. However, despite a recent decline of donor support in some of these countries, such as Nepal and India, FPOs and community forestry are still thriving (Hagen, 2014). In Guatemala, Fedecovera uses support from FFF to strengthen its businesses, set up social infrastructure and social services and intensify its lobbying effort (FAO and AgriCord, 2016).

Government agencies, private entrepreneurs and non-governmental organizations (NGOs) represent important actors in the provision of financial assistance that can help FPOs provide social protection benefits to their members. However, none of these actors are currently providing financial support for the provision of social protection benefits.

TECHNICAL ASSISTANCE

There is little evidence of FPOs receiving technical assistance on social protection benefits. However, the promotion of technical assistance in the form of training or educational programmes in the management and operation of forest resources represents an opportunity for FPOs to sustain and develop their enterprises and open up fiscal space for the provision of social protection. FPOs can receive training in marketing, business and financial skills, negotiating and complying with contracts, and quality assurance of forest products and sustainable forest management (Macqueen, 2013; De Jong *et al.*, 2010)

Civil society organizations such as NGOs and United Nations agencies are notably providing technical assistance to forest producer organizations in various parts of the world (FAO and AgriCord, 2016). Forest producer organizations receive assistance on production, sustainable forest management and forest product processing technologies (Scherr, White and Kaimowitz, 2004). Another form of technical assistance is provision of educational programmes aimed at improving knowledge and skills on sustainable forest management, business marketing, communication and management. In Nepal, the Federation of Community Forest Users Nepal (FECOFUN) raises awareness on forest and natural resource management and helps to protect user groups' rights over forest resources and to resolve conflicts and disagreements over forest product harvesting and distribution, taxation of forest products and boundary disputes. FECOFUN also engages in the provision of livelihood services to the forest-dependent poor, supports community-based enterprise development, and helps to certify and market NWFPs (FAO and AgriCord, 2016).

Ousman, Roberts and Macqueen (2006) report that external support in technical expertise was crucial for FPOs in Guyana to become fully independent and functional. For instance, FPOs benefited from training in pottery making, joinery/carpentry and sewing and craft-making funded by the Inter-American Institute for Cooperation on

Agriculture (IICA). Other associations of female forest producers received training in agro-processing techniques to make fruit-cheese from local fruits.

In the United Republic of Tanzania, butterfly farming organizations received training in a range of subjects such as butterfly biology, organizational skills, accounting, the use of computer software, marketing and communications (Scurrah-Ehrhart and Blomley, 2006). The promotion of non-forest based livelihood activities, technical training (in nursery and forest management, poultry production, beekeeping and fruit production) and the provision of agricultural inputs has helped FPOs in Ethiopia to shift their main source of income from forest-based to agriculture-based activities (Mahanty et al., 2009).

In the future, FPOs will have opportunities to receive training not just in economic and production-related knowledge, but also in the provision of social protection benefits. FAO, for example, has the knowledge and capacity to supplement its technical assistance in forest production and management with training in the design and implementation of social protection services.

COLLECTIVE ACTION AND THE PARTICIPATORY APPROACH IN FOREST PRODUCER ORGANIZATIONS

Forests provide important environmental services, and to some they serve as assets, as a source of wealth and retirement income, and as insurance against adverse agricultural shocks (Pattanayak and Sills, 2001; Takasaki, Barham and Coomes, 2004; FAO and AgriCord, 2012; López-Feldman, 2014). Forest resources are prone to fire, theft, and pests and diseases, and their management calls for collective action and a participatory approach. FPOs are also driven by principles of solidarity and reciprocity (Vinci, Djeddah and Hani, 2014). These collective principles and practices can be the channels through which FPOs provide social protection benefits. A notable example is a civil mutual aid organization established in Jiangxi Province of China for forest-dependent people and forest workers (FAO and AgriCord, 2012). Forest farmers in the area cannot individually protect their land against fire, theft, pests and diseases. In order to mitigate these challenges, the association facilitates training courses for selected members (FAO and AgriCord, 2012). The collective and participatory nature of actions by FPOs also makes them suitable providers of social protection benefits such as public works programmes that establish forest plantations and build roads in developing countries.

INTERNATIONAL CLIMATE CHANGE AND SUSTAINABLE FORESTRY INITIATIVES

A potential driving force for promoting the social protection benefits of FPOs could be national and international policies on climate change, rural development and sustainable forest management which emphasize poverty alleviation and socially and environmentally responsible organizations (Tirivayi, 2015). The global climate change agenda presents avenues for strengthening and supporting FPOs in the provision of social protection benefits. An example is the REDD+ initiative which is implemented in various countries around the world. The REDD+ initiative is a potential avenue not only for financing

FPOs through payments for environmental services (PES), but also for supporting and promoting the role of FPOs in sustainable forest management and poverty alleviation (Tirivayi, 2015). As such, FPOs would serve as a vehicle for attaining the SDGs (Vinci, Djeddah and Hani, 2016; FAO and AgriCord, 2016).

5. Conclusion

The literature shows that most of the social protection benefits provided by FPOs are in the form of social insurance (health, pension or accident insurance), informal social protection through pooled funds and self-help mechanisms, and social services in the community. To date, no evidence has been presented on the effectiveness of social protection benefits provided by forest producer organizations. In addition, studies do not provide comprehensive information on the scope and duration of these mechanisms, and limited information is available about design elements.

This review has identified a broad range of factors that can enable or constrain the provision of social protection benefits by FPOs. Enabling factors include secure land rights, robust leadership and management, revenues and market accessibility for forest resources, a supportive institutional environment, and a favourable social and political context within communities. FPOs have opportunities to obtain financial and technical assistance that can boost their viability and thereby create fiscal space for the provision of social protection. The collective and participatory nature of FPOs is an asset for implementing social protection benefits. International climate change initiatives provide potential avenues for strengthening and supporting FPOs in the provision of social protection benefits. However, organizations will need to overcome an array of constraints that arise from geographical remoteness and climate variability, insecure tenure, poor access to credit and finance and conflict, as well as social and political exclusion.

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